

## Research and Special Programs Admin., DOT

## § 173.2

APPENDIXES E–G TO PART 173 [RESERVED]  
APPENDIX H TO PART 173—METHOD OF TESTING FOR SUSTAINED COMBUSTIBILITY

AUTHORITY: 49 U.S.C. 5101–5127, 44701; 49 CFR 1.45, 1.53.

### Subpart A—General

#### § 173.1 Purpose and scope.

(a) This part includes:

(1) Definitions of hazardous materials for transportation purposes;

(2) Requirements to be observed in preparing hazardous materials for shipment by air, highway, rail, or water, or any combination thereof; and

(3) Inspection, testing, and retesting responsibilities for persons who retest, recondition, maintain, repair and rebuild containers used or intended for use in the transportation of hazardous materials.

(b) A shipment of hazardous materials that is not prepared in accordance with this subchapter may not be offered for transportation by air, highway, rail, or water. It is the responsibility of each hazmat employer subject to the requirements of this subchapter to ensure that each hazmat employee is trained in accordance with the requirements prescribed in this subchapter. It is the duty of each person who offers hazardous materials for transportation to instruct each of his officers, agents, and employees having any responsibility for preparing hazardous materials for shipment as to applicable regulations in this subchapter.

(c) When a person other than the person preparing a hazardous material for

shipment performs a function required by this part, that person shall perform the function in accordance with this part.

(d) In general, the Hazardous Materials Regulations (HMR) contained in this subchapter are based on the UN Recommendations and are consistent with international regulations issued by the International Civil Aviation Organization (ICAO Technical Instructions) and the International Maritime Organization (IMDG Code). However, the HMR are not consistent in all respects with the UN Recommendations, the ICAO Technical Instructions or the IMDG Code, and compliance with the HMR will not guarantee acceptance by regulatory bodies outside of the United States.

[Amdt. 173-94, 41 FR 16062, Apr. 15, 1976, as amended by Amdt. 173-100, 41 FR 40476, Sept. 20, 1976; Amdt. 173-161, 48 FR 2655, Jan. 20, 1983; Amdt. 173-224, 55 FR 52606, Dec. 21, 1990; Amdt. 173-231, 57 FR 20953, May 15, 1992; 64 FR 10776, Mar. 5, 1999]

#### § 173.2 Hazardous materials classes and index to hazard class definitions.

The hazard class of a hazardous material is indicated either by its class (or division) number, its class name, or by the letters “ORM–D”. The following table lists class numbers, division numbers, class or division names and those sections of this subchapter which contain definitions for classifying hazardous materials, including forbidden materials.

Class No.	Division No. (if any)	Name of class or division	49 CFR reference for definitions
None	.....	Forbidden materials .....	173.21
None	.....	Forbidden explosives .....	173.54
1	1.1	Explosives (with a mass explosion hazard) .....	173.50
1	1.2	Explosives (with a projection hazard) .....	173.50
1	1.3	Explosives (with predominately a fire hazard) .....	173.50
1	1.4	Explosives (with no significant blast hazard) .....	173.50
1	1.5	Very insensitive explosives; blasting agents .....	173.50
1	1.6	Extremely insensitive detonating substances .....	173.50
2	2.1	Flammable gas .....	173.115
2	2.2	Non-flammable compressed gas .....	173.115
2	2.3	Poisonous gas .....	173.115
3	.....	Flammable and combustible liquid .....	173.120
4	4.1	Flammable solid .....	173.124
4	4.2	Spontaneously combustible material .....	173.124
4	4.3	Dangerous when wet material .....	173.124
5	5.1	Oxidizer .....	173.127
5	5.2	Organic peroxide .....	173.128
6	6.1	Poisonous materials .....	173.132
6	6.2	Infectious substance (Etiologic agent) .....	173.134

§ 173.2a

49 CFR Ch. I (10–1–01 Edition)

Class No.	Division No. (if any)	Name of class or division	49 CFR reference for definitions
7	.....	Radioactive material .....	173.403
8	.....	Corrosive material .....	173.136
9	.....	Miscellaneous hazardous material .....	173.140
None	.....	Other regulated material: ORM-D .....	173.144

[Amdt. 173–224, 55 FR 52606, Dec. 21, 1990, as amended at 57 FR 45460, Oct. 1, 1992; Amdt. 173–234, 58 FR 51531, Oct. 1, 1993]

**§ 173.2a Classification of a material having more than one hazard.**

(a) *Classification of a material having more than one hazard.* Except as provided in paragraph (c) of this section, a material not specifically listed in the § 172.101 table that meets the definition of more than one hazard class or division as defined in this part, shall be classed according to the highest applicable hazard class of the following hazard classes, which are listed in descending order of hazard:

- (1) Class 7 (radioactive materials, other than limited quantities).
- (2) Division 2.3 (poisonous gases).
- (3) Division 2.1 (flammable gases).
- (4) Division 2.2 (nonflammable gases).
- (5) Division 6.1 (poisonous liquids), Packing Group I, poisonous-by-inhalation only.
- (6) A material that meets the definition of a pyrophoric material in

§ 173.124(b)(1) of this subchapter (Division 4.2).

(7) A material that meets the definition of a self-reactive material in § 173.124(a)(2) of this subchapter (Division 4.1).

(8) Class 3 (flammable liquids), Class 8 (corrosive materials), Division 4.1 (flammable solids), Division 4.2 (spontaneously combustible materials), Division 4.3 (dangerous when wet materials), Division 5.1 (oxidizers) or Division 6.1 (poisonous liquids or solids other than Packing Group I, poisonous-by-inhalation). The hazard class and packing group for a material meeting more than one of these hazards shall be determined using the precedence table in paragraph (b) of this section.

(9) Combustible liquids.

(10) Class 9 (miscellaneous hazardous materials).

(b) *Precedence of hazard table for Classes 3 and 8 and Divisions 4.1, 4.2, 4.3, 5.1 and 6.1.* The following table ranks those materials that meet the definition of Classes 3 and 8 and Divisions 4.1, 4.2, 4.3, 5.1 and 6.1:

PRECEDENCE OF HAZARD TABLE

[Hazard class and packing group]

	4.2	4.3	5.1 I <sup>1</sup>	5.1 II <sup>1</sup>	5.1 III <sup>1</sup>	6.1, I dermal	6.1, I oral	6.1 II	6.1 III	8, I liquid	8, I solid	8, II liquid	8, II solid	8, III liquid	8, III solid
3 I <sup>(2)</sup> .....	.....	.....	.....	.....	.....	3	3	3	3	3	(3)	3	(3)	3	(3)
3 II <sup>(2)</sup> .....	.....	.....	.....	.....	.....	3	3	3	3	8	(3)	3	(3)	3	(3)
3 III <sup>(2)</sup> .....	.....	.....	.....	.....	.....	6.1	6.1	6.1	3 <sup>4</sup>	8	(3)	8	(3)	3	(3)
4.1 II <sup>2</sup> .....	4.2	4.3	5.1	4.1	4.1	6.1	6.1	4.1	4.1	(3)	8	(3)	4.1	(3)	4.1
4.1 III <sup>2</sup> .....	4.2	4.3	5.1	4.1	4.1	6.1	6.1	6.1	4.1	(3)	8	(3)	8	(3)	4.1
4.2 II .....	4.3	5.1	4.2	4.2	6.1	6.1	4.2	4.2	8	8	4.2	4.2	4.2	4.2	4.2
4.2 III .....	4.3	5.1	5.1	4.2	6.1	6.1	6.1	4.2	8	8	8	8	4.2	4.2	4.2
4.3 I .....	.....	5.1	4.3	4.3	6.1	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
4.3 II .....	.....	5.1	4.3	4.3	6.1	4.3	4.3	4.3	8	8	4.3	4.3	4.3	4.3	4.3
4.3 III .....	.....	5.1	5.1	4.3	6.1	6.1	6.1	4.3	8	8	8	8	4.3	4.3	4.3
5.1 I <sup>1</sup> .....	.....	.....	.....	.....	.....	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
5.1 II <sup>1</sup> .....	.....	.....	.....	.....	.....	6.1	5.1	5.1	5.1	8	8	5.1	5.1	5.1	5.1
5.1 III <sup>1</sup> .....	.....	.....	.....	.....	.....	6.1	6.1	6.1	5.1	8	8	8	8	5.1	5.1
6.1 I, Dermal .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8	6.1	6.1	6.1	6.1	6.1
6.1 I, Oral .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8	6.1	6.1	6.1	6.1	6.1
6.1 II, Inhalation .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8	6.1	6.1	6.1	6.1	6.1
6.1 II, Dermal .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8	6.1	8	6.1	6.1	6.1
6.1 II, Oral .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8	8	8	6.1	6.1	6.1
6.1 III .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8	8	8	8	8	8

<sup>1</sup> See § 173.127.

<sup>2</sup> Materials of Division 4.1 other than self-reactive substances and solid desensitized explosives, and materials of Class 3 other than liquid desensitized explosives.